Page No.: 5

REMARKS

Claims 1 through 17 and new Claims 18 and 19 are pending.

Applicants acknowledge with gratitude the Examiner's indication that Claim 3 is patentable in light of the cited art. Accordingly, Claim 3 has been amended into independent form. Applicants respectfully submit that Claim 3 is now in condition for allowance.

Claim 1 has been amended, out of an abundance of caution, to delete the parentheses therefrom.

Claim 1 has been further amended to recite that the inventive preparations are in a solid state. Support for this amendment can be found in the Application as filed, for example on Page 7, line 22.

Claims 4, 5,7, 10 and 13 have been amended to delete the parentheses therefrom in conformance with United States practice.

Claim 10 has amended to delete the term "Perlstein, E 599."

Claims 14 through 17 have been amended to provide antecedent basis.

Claims 18 and 19 have been added to complete the record for examination and to highlight advantageous embodiments of the invention.

Page No.: 6

Claim 18 is directed to preparations further comprising a carrier having a porous structure. Support for Claim 18 can be found in the Application as filed, for example on Page 5, lines 24 through 25.

Claim 19 is directed to preparations which include from 10 to 50 % by weight of sorble acid, from 10 to 40 % by weight of an acid which is liquid at room temperature and from 25 to 45 % by weight of another organic acid which is solid at room temperature. Support for Claim 19 can be found in the Application as filed, for example on Page 5, lines 16 through 23.

Reexamination and reconsideration of this application, withdrawal of all rejections, and formal notification of the allowability of the pending claims are earnestly solicited in light of the remarks which follow.

Terminal Disclalmer

Claims 1, 2 and 4 through 17 stand provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over the claims of copending Application No. 10/057,212 in view of WO 98/20749 ("WO 749") and United States Patent No. 4,444,796 to Ueno et al. ("US 796").

Applicants respectfully submit herewith a terminal disclaimer for Application No. 10/057,212. More particularly, Applicants submit herewith a terminal disclaimer to be charged to Deposit Account 50-2193 that disclaims the terminal part of any patent granted on the above-identified application extending beyond the expiration date of the full statutory term of Application No. 10/057, 212.

Applicants thus respectfully request the withdrawal of the foregoing double patenting rejection.

Page No.: 7

Rejection Under 35 USC § 112

The Office Action indicates that the term "perlite" is a trademarked name. Applicants respectfully submit that "perlite" is not a tradename, but a generic name for naturally occurring siliceous rock. The Examiner's attention is kindly directed to the definition provided on the webpage of the Perlite Institute Inc, attached as Exhbit I. Accordingly, Applicants respectfully request withdrawal of this rejection.

Claims 4, 5, 7, 10 and 13 and have been amended to delete the parentheses therefrom. Accordingly, Applicants respectfully request withdrawal of this rejection.

The term "(Perlstein, E599)" has been deleted from Claim 10. Accordingly, Applicants respectfully request withdrawal of this rejection.

In claims 14 through 17, "A" was inserted before "method," as requested by the Examiner. Accordingly, Applicants respectfully request withdrawal of this rejection.

The Claimed Invention is Patentable in Light of the Art of Record

Claims 1, 2, 5 through 8, 11 through 15 and 17 stand rejected as anticipated by WO 749. Claims 1, 2, 6, 7, 11 through 13 stand rejected as anticipated by WO 92/03938 ("WO 938") or DE 19710127 ("DE 127"). Claims 1, 6 through 9, 11 and 12 stand rejected as being anticipated by United States Patent No. 4,444,796 to Ueno et al. (US 796).

It may be useful to consider the Invention recited in the claims before addressing the merits of the rejection. The claims recite <u>solid</u> preparations which include a combination of sorbic acid, at least one acid which is liquid at room temperature, and at least one other organic acid, different from sorbic acid, which is solid at room temperature.

Page No.: 8

In advantageous embodiments, the instant preparations further include a carrier having a porous structure, as recited in Claim 18. In beneficial aspects of such embodiments, the instant preparations include up to 20 % carrier, as recited in Claim 9. In particularly beneficial aspects of such embodiments, the carrier is perlite, as recited in Claim 10.

In advantageous embodiments, the inventive preparations include 10 - 50% by weight of sorbic acid, >0 to 40% by weight of liquid acids, and >0 to 50% by weight of solid organic acids, as recited in Claims 4, 5 and 7, respectively. In beneficial aspects of such embodiments, the inventive preparations include sorbic acid in an amount ranging from 10 to 50 % by weight, an acid which is liquid at room temperature in an amount ranging from 10 to 40 % by weight; and another organic acid which is solld at room temperature in an amount ranging from 25 to 45 % by weight, as recited in Claim 19

Surprisingly, the inventive preparations show an unexpectedly high stability, combined with good properties in handling. The claimed preparations exhibit superior color-stability and resist brown discoloration. The inventive preparations can exhibit storage stability and no brown discoloration for 6 months or more, for example.

Furthermore, more effective acidification of the feed is achieved. In addition, surprisingly, a beneficial effect on growth performance of young animals can be observed, even at relatively small amounts of acid.

In contrast to the solid feed additives of the invention, WO 749 is directed to aqueous preparations used to disinfect drinking water or wet feed. (Page 2, lines 27 – 35). The aqueous preparations may further be used to treat animal hooves. (Page 1, lines 12 – 14). The compositions of WO 749 include lactic acid, one or more organic acids, trace elements and oligosaccharides. (Page 1, lines 7 – 10 and Page 4, lines 17 - 19). The lactic acid may be present in amounts ranging from 1 to 85 %. (Page 3, lines 29 – 30).

Page No.: 9

Exemplary organic acids may be present in amounts ranging up to 5%. (Page 5, lines 3-5).

WO 749 does not teach or suggest the claimed solid preparations, considered either alone or in combination with the art of record. WO 749 further does not teach or suggest preparations additionally including a carrier, as recited in Claims 2, 9,10 and 18. Nor does WO 749 teach or suggest the beneficial amounts recited in Claims 4, 5, 7 and 19.

Accordingly, Applicants respectfully submit that the claimed invention is patentable in light of WO 749, considered either alone or in combination with the art of record.

As noted by the Examiner, both WO 938 and DE 127 are similarly directed to aqueous compositions.

WO 938 is directed to aqueous compositions used to heat treat proteinaceous products, such as meat, to increase shelf stability. (Page 2, lines 34-39). The compositions include a polymeric acid, such as carboxymethylcellulose acid. (Page 3, lines 23-35). Further potentiating acidulants may be incorporated. (Page 6, lines 5-11). WO 938 is silent as to suitable weight ranges for the polymeric acid and potentiating acidulants. WO 938 expressly recommends that the polymeric acid and potentiating acidulant be heat treated within an aqueous solution prior to contact with the protenaceous product. (Page 7, lines 7-11).

WO 938 similarly does not teach or suggest the claimed solid preparations, considered either alone or in combination with the art of record. WO 938 further does not teach or suggest preparations additionally including a carrier, as recited in Claims 2, 9,10 and 18. Nor does WO 938 teach or suggest the beneficial amounts recited in Claims 4, 5, 7 and 19.

Page No.: 10

Accordingly, Applicants respectfully submit that the claimed invention is patentable in light of WO 938, considered either alone or in combination with the art of record.

DE 127 is directed to an antibacterial agent for use in drinking water and the like. The agent includes a germ-destroying agent <u>dissolved in</u> an acid that is permitted as a foodstuff additive, such as lactic acid <u>or</u> citric acid. DE 127 is similarly silent as to component ranges.

DE 127 likewise does not teach or suggest the clalmed solid preparations, considered either alone or in combination with the art of record. DE 127 further does not teach or suggest preparations additionally including a carrier, as recited in Claims 2, 9,10 and 18. Nor does DE 127 teach or suggest the beneficial amounts recited in Claims 4, 5, 7 and 19.

Accordingly, Applicants respectfully submit that the claimed invention is patentable in light of DE 127, considered either alone or in combination with the art of record.

US 798 is directed methods for producing semi-moist pet foods having improved storage stability. (Col. 1, lines 6-9). More particularly, US 796 discloses special methods by which to <u>dissolve</u> sorbic acid within semi-moist pet foods. (Col. 3, lines 27-30 and 52-55). Commercially available sorbic acid is pulverized into small particulates. The pulverized sorbic acid is then formed into granules and the granules added to the pet food. (Col. 6, lines 56-64). Further organic acids may be incorporated into the granules as a binder, in undisclosed amounts. (Col. 4, lines 62-67).

In contrast to the position urged within the Office Action, the sorbic and additional organic acids may be added <u>separately</u> to the pet food in particular alternative embodiments. In such particular alternative embodiments, a <u>separate</u> liquid acidic substance may also be incorporated. (Col. 5, lines 35 – 41, noting that "[I]n this [i.e. the

P. 15

Application No.: 10/015,913 Filing Date: October 31, 2001

<u> Page No.: 11</u>

separate add] procedure not only the above-exemplified substances, but also liquid acidic substances ... can be used").

Applicants respectfully submit that US 796, considered either alone or in combination with the art of record, does not teach or suggest the recited solid preparation which includes a combination of sorbic acid, at least one acid which is liquid at room temperature, and at least one other organic acid, different from sorbic acid, which is solid at room temperature. US 796 further does not teach or suggest preparations additionally including a carrier, as recited in Claims 2, 9,10 and 18. Nor does US 796 teach or suggest the beneficial amounts recited in Claims 4, 5, 7 and 19.

Accordingly, Applicants respectfully submit that the claimed invention is patentable in light of US 796, considered either alone or in combination with the art of record.

Consequently, Applicants respectfully submit that the claimed invention is patentable in light of the art of record, considered either alone or in combination.

CONCLUSION

It is respectfully submitted that Applicants have made a significant and important contribution to the art, which is neither disclosed nor suggested in the art. It is believed that all of pending Claims 1 through 17 and new Claims 18 and 19 are now in condition for immediate allowance. It is requested that the Examiner telephone the undersigned if any questions remain to expedite examination of this application.

It is not believed that fees for extensions of time or net addition of claims are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional fees are necessary to allow consideration

PROPAT LLC

Fax: 7043654851

Mar 23 2004 12:06

P. 16

Application No.: 10/015,913 Filing Date: October 31, 2001

Page No.: 12

of this paper, the fees are hereby authorized to be charged to Deposit Account No. 50-2193.

Respectfully submitted,

U. Schank

Klaus Schweitzer See attached Limited Recognition Under 37 CFR§10.9(b)

ProPat, L.L.C. 425-C South Sharon Amity Road Charlotte, NC 28211-2841 Telephone: 704-365-4881

Facsimile: 704-365-4851

CERTIFICATE OF FACSIMILE TRANSMISSION

I hereby certify that this correspondence is being facsimile transmitted to the United States Patent and Trademark Office at facsimile number (703) 872-9306 on March 23, 2004.

Claire Wygand

Exhibit I



Perlite Institute Inc.

World Trade Organization

ABOUT US

MEMBERSHIP

PERLITE INFO

MEMBER LOGIN

Basic Facts About Perlite

About the Perlite <u>Institute</u>

Origin and Characteristics...

Member List

Health Effects

Perlite Information

Lewis Lloyd Award

MEMBER LOGIN

Perlite is not a trade name but a generic term for naturally occurring silicous rock. The distinguishing feature which sets perlite apart from other volcanic glasses is that when heated to a suitable point in its softening range, it expands from four to twenty times its original volume.

This expansion is due to the presence of two to six percent combined water in the crude perlite rock. When quickly heated to above 1600°F (871°C), the crude rock pops in a manner similar to popcorn as the combined water vaporizes and creates countless tiny bubbles which account for the amazing light weight and other exceptional physical properties of expanded perlite.

This expansion process also creates one of perlite's most distinguishing characteristics: its white color. While the crude rock may range from transparent light gray to glossy black, the color of expanded perlite ranges from snowy white to grayish white.

Expanded perlite can be manufactured to weigh as little as 2 pounds per cubic foot (32kg/m³) making it adaptable for numerous applications.

Since perlite is a form of natural glass, it is classified as chemically inert and has a pH of approximately 7.

Typical Elemental Analysis

Silicon	33.8
Aluminum	7.2
Potassium	3.5
Sodium	3.4
Iron	0.6
Calcium	0.6
Magnesium	0.2
Trace	0.2
Oxygen (by difference)	47.5
Net Total	97.0
Bound Water	3.0

Typical Physical Properties

Color	White
Refractive Index	1.5
Free Moisture, Maximum	0.5%
pH (of water slurry)	6.5 - 8.0
Specific Gravity	2.2 - 2.4
Bulk Density (loose weight)	As desired but usually in the 2-25 lb/ft ³ range (32-400

http://www.perlite.org/bfacts.htm

3/9/2004

* All analyses are shown in elemental form even though the actual forms present are mixed glassy silicates. Free silica may be present in small amounts, characteristic of the particular ora body. More specific information may be obtained from the ore supplier involved.

	kg/m³)	
Mesh Size Avaliable	As desired, 4-8 mesh and finer	
Softening Point	1600-2000°F (871-1093°C)	
Fusion Point	2300-2450°F (1260-1343°C)	
Specific Heat	0.2 Btu/lb.ºF (387 J/kg·K)	
Thermal Conductivity at 75°F (24°C)	.2741 Btu·ln/h·ft ² ·°F (.0406 W/m·K)	
Solubility - Soluble in hot concentrated alkali and HF - Moderately soluble (<10%) In 1N NaOH - Slightly soluble (<3%) In mineral acids (1N) - Very slightly soluble (<1%) In water or weak acids		

Uses for Perlite...

There are many uses for perlite. These uses can be broken down into three general categories: construction applications, horticultural applications, and industrial applications.

Construction Applications

Because of perlite's outstanding insulating characteristics and light weight, it is widely used as a loose-fill insulation in masonry construction. In this application, free-flowing perlite loose-fill masonry insulation is poured into the cavities of concrete block where it completely fills all cores, crevices, mortar areas and ear holes. In addition to providing thermal insulation, perlite enhances fire ratings, reduces noise transmission and it is rot, vermin and termite resistant. Perlite is also ideal for insulating low temperature and cryogenic vessels. When perlite is used as an aggregate in concrete, a lightweight, fire resistant, insulating concrete is produced that is ideal for roof decks and other applications. Perlite can also be used as an aggregate in Portland cement and gypsum plasters for exterior applications and for the fire protection of beams and columns. Other construction applications include under-floor insulation, chimney linings, paint texturing, gypsum boards, ceiling tiles, and roof insulation boards.

Horticultural Applications

In horticultural applications, perlite is used throughout the world as a

http://www.perlite.org/bfacts.htm

3/9/2004

PEKLITE INSTITUTE HOME

component of sollless growing mixes where it provides aeration and optimum moisture retention for superior plant growth. For rooting cuttings, 100% perlite is used. Studies have shown that outstanding yields are achieved with perlite hydroponic systems. Other benefits of horticultural perlite are its neutral pH and the fact that it is sterile and weed-free. In addition, its light weight makes it ideal for use in container growing. Other horticultural applications for perlite are as a carrier for fertilizer, herbicides and pesticides and for pelletizing seed. Horticultural perlite is as useful to the home gardener as it is to the commercial grower. It is used with equal success in greenhouse growing, landscaping applications and in the home in house plants.

Fax: 7043654851

Industrial Applications

Industrial applications for perlite are the most diverse, ranging from high performance fillers for plastics to cements for petroleum, water and geothermal wells. Other applications include its use as a filter media for pharmaceuticals, food products, chemicals and water for municipal systems and swimming pools.

Additional applications include its use as an abrasive in soaps, cleaners, and polishes; and a variety of foundry applications utilizing perlite's insulating properties and high heat resistance. This same heat resistant property is taken advantage of when perlite is used in the manufacture of refractory bricks, mortars, and pipe insulation.

BEFORE THE OFFICE OF ENROLLMENT AND DISCIPLINE UNITED STATES PATENT AND TRADEMARK OFFICE

LIMITED RECOGNITION UNDER 37 CFR § 10.9(b)

Klaus Schweitzer is hereby given limited recognition under 37 CFR § 10.9(b) as an employee of ProPat, L.L.C. to prepare and prosecute U.S. patent applications wherein the applicant is the client of ProPat, L.L.C., and the attorney of record in the applications is Mr. Gregory Clements (Reg. No. 30,713). This limited recognition shall expire on the date appearing below, or when whichever of the following events first occurs prior to the date appearing below: (i) Klaus Schweitzer ceases to lawfully reside in the United States, (ii) Klaus Schweitzer's employment with ProPat, L.L.C. ceases or is terminated, or (iii) Klaus Schweitzer ceases to remain or reside in the United States on an E2 visa.

This document constitutes proof of such recognition. The original of this document is on file in the Office of Enrollment and Discipline of the U.S. Patent and Trademark Office.

Expires: November 6, 2004

Harry I. Moatz

Director of Enrollment and Discipline